

REMARKS

Claims 1-7 are currently pending in this application. Claims 1-4 have been amended. Claims 5-7 have been added.

Support for amendments

The amendments to claim 1 and 2 that the composition is for a thread-wound golf ball are supported by the disclosure of the specification generally, e.g. by the entirety of page 1. That the molecular weight of the rubber composition is measured by gel permeation chromatography is supported at, e.g. page 3, lines 28-32. A minor editorial amendment to more clearly state the proportions of natural to synthetic rubber in the composition, that does not change the scope of the claims, is also made in claim 2. Claims 3-4 are amended to independent form, and merely incorporate the limitations of the base claims. New claims 5-7 are supported at, e.g. page 4, lines 17-26.

Drawings

The drawings of record have been deemed acceptable.

IDS

The form PTO-1449 filed with the IDS of July 1, 2003 and Supplemental PTO-1449 filed July 25, 2003 have been returned with the reference JP 11-222536 crossed through as "missing".

Applicants accordingly provide here another copy of that reference together with a second form PTO-1449 listing the reference. The Examiner is requested to consider the JP 11-222536 reference and return an initialed copy of the form PTO-1449 in the next office communication.

Claim objections

Claims 3 and 4 are objected to as being improper in not actually further limiting claim 1 from which they depend. Claims 3 and 4 are rewritten herein into independent form, thus obviating this objection.

Rejection under 35 USC § 112, second paragraph

Claims 1-4 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in failing to recite the basis of measurement of the "single peak" in molecular weight. Claim 1 is amended to recite measurement by gel permeation chromatography, thus obviating this rejection.

Rejections over prior art

Claims 1-4 are rejected under 35 U.S.C. § 102(b) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over Hamada '939. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner notes that Hamada '939 describes manufacture of a golf ball comprising a thread wound core, the threads being produced from a blend of natural rubber and synthetic rubber having a cis-1,4 bond content of at least 90%.

First, Applicants' Representative fails to see the disclosure in Hamada '939 of the cis-1,4 bond content of at least 90%. The portion of the specification indicated by the Examiner refers to a blend of "high cis content" and "low cis content" rubber. Thus, there is no disclosure or suggestion in Hamada '939 that a rubber composition including rubber having at least 90% cis-1,4 content should be used.

Furthermore, the Examiner appears to be relying upon an inherency theory to support his conclusion that the composition of the Hamada reference, though silent with respect to the feature of having a single peak of molecular weight distribution, nevertheless possess such a property. The Examiner indicates that this is so because, "the constituents employed, their relative inclusion and the final product of a thread for production of a golf ball are shown by the reference."

The Examiner is first reminded that for an inherency theory to hold water, the property alleged to be inherent must necessarily, not possibly, or even probably, be present as a result of the disclosed composition. The Examiner as yet has provided no evidence that this is the case.

Second, Applicants' Representative would point out that the premise upon which the alleged inherency rests is not correct; the composition of Hamada '939 is disclosed as a blend of "high cis" and "low cis" rubbers. There is no disclosure of use of a rubber composition comprising at least 90% cis-1,4 bond-containing rubber.

Accordingly, at least the feature that the synthetic rubber used in the composition would have a single peak in molecular weight as measured by gel permeation chromatography is not disclosed or suggested by Hamada. Applicants further submit that such synthetic rubbers as do have a single peak of molecular weight distribution do not typically exhibit a ratio of weight average molecular weight to number average molecular weight within 2.5 to 3.7. Thus, the composition presently claimed is not necessarily that of Hamada '939 and the resulting properties of the claimed composition are not necessarily those of Hamada '939. Therefore, the Examiner's theory of inherency fails for this further reason.

The presently claimed composition is not obvious over Hamada '939 because selection of a synthetic rubber containing at least 90% cis-1,4 bond content and a molecular weight distribution that is a single peak when measured by gel permeation chromatography, and a ratio of Mw/Mn from 2.5-3.7 is not disclosed or suggested by the reference.

Applicants submit that, for all of the above reasons, the rejection of claims 1-4 under 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) over Hamada '939 should be withdrawn.

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over Hamada '465. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

In regard to the features of the present invention, Hamada '465 is deficient in supporting the instant rejection for the same reasons as Hamada '939 is deficient as explained above. Again the portions of the reference cited by the Examiner do not disclose that a rubber composition comprising a synthetic rubber having at least 90% cis-1,4 bond content should be used. The Examiner's assertion of inherency of the features about which Hamada '465 is silent is neither legally sufficient, and at least one fact premise upon which it is based is not correct.

Accordingly, the instant rejection should be withdrawn for the same reason that the rejection based upon Hamada '939 should be withdrawn.

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over Akita. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

Applicants again submit that the Examiner is relying upon a theory of inherency to allege that at least one feature of the present invention, e.g. that the synthetic rubber used in the composition has a single peak in molecular weight, and a ratio of Mw/Mn of from 2.5 to 3.7, is flawed. There is no evidence of record that establishes that these features recited in claim 1 would necessarily be found in the compositions disclosed by Akita. Accordingly, the instant rejection fails and should be withdrawn.

Furthermore, Akita discloses a rubber composition for a tire tread, not for a thread wound golf ball as recited in the instant claims. Accordingly, one of ordinary skill in the art, reading Akita, would not be apprised of the instant invention.

In regard to all of the standing rejections, the present claims 5-7 at least are patentable because the feature recited in those claims, i.e. a stated range of weight average molecular weight, a stated range of number average molecular weight, or such ranges for both parameters, is not described or suggested by any of the references of record. Thus, claims 5-7 at least are not anticipated by or *prima facie* obvious over these references.

Furthermore, the features recited in claims 5-7 provide the unexpected result that utilizing a rubber composition comprising a synthetic rubber having these properties confers unexpected improvement in impact resistance and carry of a golf ball made

using the rubber composition and in the workability of the rubber composition itself. See, page 4, lines 16-26 of the specification.

Conclusion

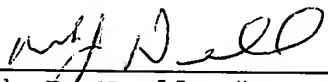
Applicants submit that the present application well-describes and claims patentable subject matter. The favorable action of withdrawal of the standing rejections and allowance of the present claims 1-7 is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By   
Mark J. Nuell, #36,623

DRN/mua  
0033-0887P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

Attachment(s): JP 11-222536 A with English translation of Abstract  
Copy of PTO-1449